REMARKS

The Examiner is thanked for the thorough examination of the present application. The Office Action, however, rejected all claims 39-53. Notwithstanding the fact that this Office Action was the first action following an RCE, the Examiner has made the Office Action FINAL. Applicant believes that this is improper, as the claims were amended in the submission that accompanied the RCE. In this regard, it has been the undersigned's experience in recent months that, virtually every after-FINAL amendment is refused entry, unless the amendment is accompanies by an RCE. The PTO has generally taken the position that essentially all amendments (unless the amendments are merely incorporating subject matter from dependent claims into independent claims) raise "new issues" for consideration, and therefore the PTO has been requiring Applicants to file RCE applications in order to have after-FINAL amendments entered. The undersigned believes that the previous amendment would similarly have been refused entry had it not been filed with an RCE. Therefore, the undersigned believes that this first action FINAL is improper.

Amendments to the Specification

In the specification, the paragraph amended beginning on page 5 line 7 has been amended to clearly define that at most 30 mole% of organic monomers, such as cyclohexyl vinyl ether, 4-hydroxybutyl vinyl ether, ethyl vinyl ether, methyl methacrylate, butyl acrylate, 4-hydroxyl ethyl methacrylamide, glyceryl methacrylamide, acrolein, butyl vinyl ether, propionic vinyl ether, α,α-dimethylpropionic vinyl ether, or combinations thereof, can be added to the polymer comprising compounds other than perfluorinated polymer of the present invention and copolymerized with VdF and other monomers such as HFP, CTFE,

TFE, or combinations thereof in order to further enhance the solubility and adhesion with the substrate of the electret without negative affect on the polarized initial surface potential and charge stability thereof. Support for this description can be found in original claims 39 and 45, wherein original claim 39 discloses the electret having a first polymer ***copolymerizing from monomers having*** VdF as a first monomer, and HFP, CTFE, TFE, or combinations thereof as a second monomer, and original claim 45 discloses ***the monomers further comprise*** a third monomer comprising cyclohexyl vinyl ether, 4-hydroxybutyl vinyl ether, ethyl vinyl ether, methyl methacrylate, butyl acrylate, 4-hydroxyl ethyl methacrylamide, glyceryl methacrylamide, acrolein, butyl vinyl ether, propionic vinyl ether, α,α-dimethylpropionic vinyl ether, or combinations thereof. Accordingly, the amendment adds no new matter to the application.

Claim Amendments

Claims 39 and 46 have been amended. Claim 45 has been cancelled. Claims 39-44 and 46-53 remain pending in this application. In this regard, Applicant has merged original claim 45 into claim 39 to more clearly define a novel and non-obvious feature of the claimed embodiments. Specifically, the amended claim 39 recites the limitation "the electret having a first polymer copolymerizing from monomers having vinylidene fluoride (VdF) as a first monomer, hexafluoropropylene (HFP), chlorotrifluoro ethylene (CTFE), tetrafluoro ethylene (TFE), or combinations thereof as a second monomer, and a third monomer comprising cyclohexyl vinyl ether, 4-hydroxybutyl vinyl ether, ethyl vinyl ether, methyl methacrylate, butyl acrylate, 4-hydroxyl ethyl methacrylamide, glyceryl methacrylamide, acrolein, butyl vinyl ether, propionic vinyl ether, α,α-dimethylpropionic

vinyl ether, or combinations thereof". As this feature was embodied in claim 45, the amendment raises no new issues for consideration.

Applicant has amended original claim 46 to depend from amended claim 39.

35 U.S.C. 103(a)

Claims 39, 40, and 53 stand rejected under 35 U.S.C. 103(a) as allegedly unpatentable over Chou et al. (US Pat. 2003/0054716) in view of Yamamoto et al. (US Pat. 4,560,737). Claims 39-44, 47, 50, 51, and 52 stand rejected under 35 U.S.C. 103(a) as allegedly unpatentable over Yamamoto et al. in view of Chou et al. Claims 45 and 46 stand rejected under 35 U.S.C. 103(a) as allegedly unpatentable over Yamamoto et al. in view of Chou et al., and further in view of US 3,607,754 (hereinafter the '754 patent). Applicant respectfully requests reconsideration and withdrawal of these rejections for at least the reasons that follow. As the subject matter from claim 45 has been incorporated into claim 39, the original rejection of claim 39 is rendered moot, and the following discussion of claim 39 will address the rejection of claim 45.

It is well established at law that, for a proper rejection of a claim under 35 U.S.C. §103 as being obvious based upon a combination of references, the cited combination of references must disclose, teach, or suggest, either implicitly or explicitly, all elements/features/steps of the claim at issue. See, *e.g.*, *In Re Dow Chemical*, 5 U.S.P.Q.2d 1529, 1531 (Fed. Cir. 1988), and *In re Keller*, 208 U.S.P.Q. 871, 881 (C.C.P.A. 1981).

None of the cited references teach or suggest "the electret having ***a first polymer copolymerizing from*** monomers having vinylidene fluoride (VdF) as ***a first monomer***,

hexafluoropropylene (HFP), chlorotrifluoro ethylene (CTFE), tetrafluoro ethylene (TFE), or combinations thereof as ***a second monomer, and a third monomer comprising cyclohexyl vinyl ether, 4-hydroxybutyl vinyl ether, ethyl vinyl ether, methyl methacrylate, butyl acrylate, 4-hydroxyl ethyl methacrylamide, glyceryl methacrylamide, acrolein, butyl vinyl ether, propionic vinyl ether, α,α-dimethylpropionic vinyl ether, or combinations thereof*** of the claimed invention.

In page 8 of this Office Action, the Examiner admits Yamamoto is silent as to teaching of the third monomer as claimed in claim 45 (now combined into claim 39), but alleges that this feature is disclose by the '754 patent. Applicant respectfully disagrees.

The '754 patent discloses an electret comprising a **resin mixture of** from 50 to 90 percent by weight of a ***vinylidene fluoride resin and*** from 10 to 50 percent by weight of ***a methyl methacrylate resin***, said resin mixture having been subjected to polarization. (See abstract of '754).

In contrast, independent claim 39 recites:

> 39. An electret composite, comprising:
> a porous substrate; and
> an electret coated on the substrate along the porous profile thereof, the electret having ***a first polymer copolymerizing from monomers having*** vinylidene fluoride (VdF) as ***a first monomer***, hexafluoropropylene (HFP), chlorotrifluoro ethylene (CTFE), tetrafluoro ethylene (TFE), or combinations thereof as ***a second monomer***, and ***a third monomer comprising cyclohexyl vinyl ether, 4-hydroxybutyl vinyl ether, ethyl vinyl ether, methyl methacrylate, butyl acrylate, 4-hydroxyl ethyl methacrylamide, glyceryl methacrylamide, acrolein, butyl vinyl ether, propionic vinyl ether, α,α-dimethylpropionic vinyl ether, or combinations thereof***.

(*Emphasis added*). Independent claim 39 patently defines over the cited art for at least the reason that the cited art fails to disclose at least the features emphasized above.

The Examiner stated that the '754 patent discloses an electret comprising a **resin mixture of** a ***vinylidene fluoride resin and a methyl methacrylate resin*** (Office Action, p. 8). The '754 patent, however, fails to teach or suggest the ***vinylidene fluoride resin and the methyl methacrylate resin*** are ***copolymerized***.

As a result, combination of Yamamoto et al., Chou et al., and '754 ***fails to*** disclose, teach, or suggest, either implicitly or explicitly, all elements/features/steps of claims. For example, the following elements/features/steps are not disclosed, taught, or suggested, either implicitly or explicitly, by combination of Yamamoto et al., Chou et al., and '754:

> ...
> the electret having ***a first polymer copolymerizing from*** monomers having vinylidene fluoride (VdF) as ***a first monomer***, hexafluoropropylene (HFP), chlorotrifluoro ethylene (CTFE), tetrafluoro ethylene (TFE), or combinations thereof as ***a second monomer, and a third monomer comprising cyclohexyl vinyl ether, 4-hydroxybutyl vinyl ether, ethyl vinyl ether, methyl methacrylate, butyl acrylate, 4-hydroxyl ethyl methacrylamide, glyceryl methacrylamide, acrolein, butyl vinyl ether, propionic vinyl ether, α,α-dimethylpropionic vinyl ether, or combinations thereof,***

as expressly recited in claim 39.

As neither Yamamoto et al., Chou et al., nor '754, when taken alone or in combination, teaches or suggests "the electret having ***a first polymer copolymerizing from*** monomers having vinylidene fluoride (VdF) as ***a first monomer***, hexafluoropropylene (HFP), chlorotrifluoro ethylene (CTFE), tetrafluoro ethylene (TFE), or combinations thereof as ***a second monomer, and a third monomer comprising cyclohexyl vinyl ether, 4-hydroxybutyl vinyl ether, ethyl vinyl ether, methyl methacrylate, butyl acrylate, 4-hydroxyl ethyl methacrylamide, glyceryl methacrylamide, acrolein, butyl vinyl ether, propionic vinyl ether, α,α-dimethylpropionic vinyl ether, or combinations thereof***" of

claim 39, claim 39 is allowable over the cited references. Insofar as claims 40-44 and 46-53 depend from claim 39, these claims are also allowable.

Deficiency of Rejection of Claim 45

Turning back to the rejection of claim 45, as set forth in the Office Action, previous claim 45 (now embodied in claim 39) expressly recited the limitation that: "wherein the monomers further comprise a third monomer comprising cyclohexyl vinyl ether, 4-hydroxybutyl vinyl ether, ethyl vinyl ether, methyl methacrylate, butyl acrylate, 4-hydroxyl ethyl methacrylamide, glyceryl methacrylamide, acrolein, butyl vinyl ether, propionic vinyl ether, α,α-dimethylpropionic vinyl ether, or combinations thereof." Although the Office Action admitted that Yamamoto did not teach this feature, the Office Action never specifically alleged that this feature was disclose in the '754 patent. Instead, the Office Action merely references certain general teachings of the '754 patent (citing col. 1, lines 10-12 and lines 27-29). However, these cited portions of the '754 patent merely state:

> It is well known that if a high direct current potential is applied to an article composed of a vinylidene fluoride resin at a suitable temperature and the article is cooled in that state, the article maintains its polarized state or shows a so-called electret phenomenon.
>
> ...
>
> the electret prepared by using vinylidene fluoride resin does not always sufficiently maintain electric charges.

In essence, the cited portion of the '754 patent merely states that the electric prepared by using vinylidene fluoride does not always sufficiently maintain electric charges. However, merely noting a deficiency of a prior solution or teaching is not the same as disclosing a solution to that deficiency.

Simply stated, not only does the '754 patent not disclose the claimed feature of claim 45, but the rejection set forth in the Office Action doesn't even allege that feature to be disclosed. Consequently, claim 39 (formerly claim 45) defines over the applied art, and indeed the rejection of this claim is deficient. Stated another way, even if the selective teachings of the '754 patent could be properly combined with the combination of Yamamoto and Chou, the resulting combination still does not disclose or suggest all of the features embodied in claim 39. For at least this reason, the rejection of claim 39 should be withdrawn.

As a separate and independent basis for the patentability of all claims, Applicant submits that the combination of Yamamoto, Chou, and the '754 patent is improper. In this regard, the Office Action combined the '754 patent with the combination of Yamamoto and Chu to reject claim 45 (now claim 39) on the solely expressed basis that "it would have been obvious ... motivated by the desire to provide an electret having a high surface charge density and excellent maintenance of electric charges." (see e.g., Office Action, p. 8)

This rationale is both incomplete and improper in view of the established standards for rejections under 35 U.S.C. § 103.

In this regard, the MPEP section 2141 states:

> Office policy has consistently been to follow *Graham v. John Deere Co.* in the consideration and determination of obviousness under 35 U.S.C. 103. As quoted above, the four factual inquires enunciated therein as a background for determining obviousness are briefly as follows:
>
> (A) Determining of the scope and contents of the prior art;
>
> (B) Ascertaining the differences between the prior art and the claims in issue;
>
> (C) Resolving the level of ordinary skill in the pertinent art; and

(D) Evaluating evidence of secondary considerations.

. . .

BASIC CONSIDERATIONS WHICH APPLY TO OBVIOUSNESS REJECTIONS

When applying 35 U.S.C. 103, the following tenets of patent law must be adhered to:

(A) The claimed invention must be considered as a whole;

(B) The references must be considered as a whole and must suggest the desirability and thus the obviousness of making the combination;

(C) The references must be viewed without the benefit of impermissible hindsight vision afforded by the claimed invention and

(D) Reasonable expectation of success is the standard with which obviousness is determined.

Hodosh v. Block Drug Co., Inc., 786 F.2d 1136, 1143 n.5, 229 USPQ 182, 187 n.5 (Fed. Cir. 1986).

The foregoing approach to obviousness determinations was recently confirmed by the United Stated Supreme Court decision in KSR INTERNATIONAL CO. V. TELEFLEX INC. ET AL. 550 U.S. ___ (2007)(No. 04-1350, slip opinion, p. 2), where the Court stated:

> In Graham v. John Deere Co. of Kansas City, 383 U. S. 1 (1966), the Court set out a framework for applying the statutory language of §103, language itself based on the logic of the earlier decision in Hotchkiss v. Greenwood, 11 How. 248 (1851), and its progeny. See 383 U. S., at 15–17. The analysis is objective:
>
> "Under §103, the scope and content of the prior art are to be determined; differences between the prior art and the claims at issue are to be ascertained; and the level of ordinary skill in the pertinent art resolved. Against this background the obviousness or nonobviousness of the subject matter is determined. Such secondary considerations as commercial success, long felt but unsolved needs, failure of others, etc., mightbe utilized to give light to the circumstances surrounding the origin of the subject matter sought to be patented." Id., at 17–18.

Simply stated, the Office Action has failed to at least (1) ascertain the differences between and prior art and the claims in issue; and (2) resolve the level of ordinary skill in

the art. Furthermore, the alleged rationale for combining the two references (i.e., motivated by the desire to provide an electret having a high surface charge density and excellent maintenance of electric charges) embodies clear and improper hindsight rationale. First, and as noted above, the '754 patent doesn't even disclose the specific features of claim 39. Secondly, the Office Action has alleged no nexus between a high surface charge density and the specific features of claim 45. For at least these additional reasons, Applicant submits that the rejections of claim 39 (and therefore all claims) is improper and should be withdrawn.

If the Examiner believes a teleconference will expedite the examination of this application, the Examiner is invited to contact the undersigned attorney at 770-933-9500.

No fee is believed to be due in connection with this submission. If, however, any fee is deemed to be payable, you are hereby authorized to charge any such fee to deposit account 20-0778.

Respectfully submitted ,

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